

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013830**Date Inspected:** 05-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girders (OBG)**Summary of Items Observed:**

Quality Assurance inspector (QA) Michael Foerder was at the American Bridge/Flour (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. OBG Field Splice 1E/2E Face D Repairs (Outside)
2. OBG Field Splice 3E/4E Face C (Outside)
3. OBG Field Splice 3E/4E Face E (Outside)
4. OBG Field Splice 3W/4W Face A Repairs

Field Splice 1E/2E Face D (Outside)

The QA inspector periodically observed ABF welding personnel Mitch Sittinger grinding operations in order to excavate and remove the rejectable indications previously identified by QC utilizing Ultrasonic Testing (UT). QC inspector Tony Sherwood was noted to be present in order to monitor the progress and adherence to the welding procedure specification designated as ABF-WPS-D1.5-1001 Repair. The excavation at approximate Y location designated 2900mm was reviewed by the QC inspector and the welder performed the repair utilizing the shielded metal arc welding (SMAW) process and the amps were verified to be 140. The welder completed this area and proceeded to excavate and repair two additional repair areas at Y location designated 3100mm which was completed later in the shift. The work appeared to be in general conformance with the contract documents.

Field Splice 3E/4E Face C (Outside)

The QA inspector noted and periodically observed ABF welding operators Rory Hogan and Jeremy Dolan

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performing the grinding operations for face C on the second side (Outside). The welding operators completed the grinding operation and QC inspector Jim Cunningham reviewed the area and approved the weld joint for welding. The operators proceeded to place the induction heating coils and performed final adjustments, however no welding was performed by the mid morning break. See QA inspector Joselito Lizardo's TL-6031 for more information on this specific location for the time frame after the mid morning break.

Field Splice 3E/4E Face E (Outside)

The QA inspector periodically observed QC inspector Steve McConnell performing the magnetic particle testing (MT) for the outside weld face with no rejectable indications noted at the time of review. A short time later in the shift the QC inspector was observed performing ultrasonic testing (UT) at this location initiating from the bottom plate/side plate and progressing toward the edge plate. The QC inspector was noted to be utilizing a zero degree transducer for lamination examination and a 70 degree transducer and wedge combination for shear wave examination. Several areas were marked for further evaluation and preliminary scanning has determined multiple rejectable indications are present which will require repair. The work progressed throughout the QA inspectors shift, was not completed and appeared to be progressing in general compliance with the contract documents.

Field Splice 3W/4W Face A Repairs

The QA inspector periodically observed ABF welding personnel Jordan Hazalaar performing shielded metal arc welding (SMAW) for the rejectable indications previously identified by ultrasonic testing. QC inspector Tom Pascaulone was noted to be present in order to monitor the progressing and ensure the work was being performed in accordance with the welding procedure specification designated as ABF-WPS-D1.5-1001 Repair. The pre heat and interpass temperature was verified by the QC inspector to be with the WPS and the welding amperage was verified to be 185. The welder initiated the welding at Y locations designated 26,600mm, 26,800mm and 27,200mm after the QC inspector had performed a visual and MT review. The work for these locations were completed during the QA inspector's shift and appeared to be in general conformance with the contract documents.



Summary of Conversations:

As noted above in items observed.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916)813-3677, who represents the Office of Structural

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Materials for your project.

Inspected By: Foerder, Mike

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer